



# Assault Pre-ATRB 03-02

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# VH-3D

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Mission: To provide helicopter transportation for the President and Vice President of the United States, members of the President's Cabinet and foreign dignitaries as directed by the Director, White House Military Office.



Primary Presidential  
Transport

**Special Features:**

- Shipboard compatible
- VIP Cabin Interior
- EMP Hardened
- Self-Contained Navigation
- Extensive Avionics Upgrades
- Extensive Communications Capability
- Air Transportable - C-5, C-17

**Capability/Improvements:**

- Day / night / all weather operation
- Night Vision Goggle (NVG) compatible
- Global Positioning System
- Crash Survivable Flight Incident Recorder
- Traffic Collision Avoidance System
- VH Comm Suite Upgrade



# VH-60N

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Mission: To provide helicopter transportation for the President and Vice President of the United States, members of the President's Cabinet and foreign dignitaries as directed by the Director, White House Military Office.



Emergency Response/Presidential  
Transport

## Special Features:

- Shipboard compatible
- VIP Cabin Interior
- EMP Hardened
- Self-Contained Navigation
- Extensive Avionics Upgrades
- Extensive Communications Capability
- Communications System Operator
- Air Transportable - C-130, C-141, C-5, C-17

## Capability/Improvements:

- Day / night / all weather operation
- Night Vision Goggle (NVG) compatible
- Global Positioning System
- Crash Survivable Flight Incident Recorder
- Traffic Collision Avoidance System
- VH Comm Suite Upgrade
- VH-60N Cockpit Upgrade

# ***H-53E HELICOPTERS***

## ***USN/USMC Heavy Lift Aircraft***



# ***Background***

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- **CH-53E Entered Operation December 1980**
- **CH-53E Projected Service End Date 2018-2022**
- **FY 2002 Average Mission Capable Rate 68.4%**
  - **Iraq 87.9% (CENTAF report, March-April 03)**
- **FY 2002 Yearly Operation and Support Costs \$408M (US)**
  - **152 CH-53E Aircraft**



# ***CH-53E Missions***



Combat  
Equipment



Cargo Transport  
Resupply



Troop Movement



Medical  
Evacuation



Tactical Aircraft  
Recovery



Combat Search  
and Rescue

# ***H-53E Models***



U.S. Military Designation:  
**CH-53E**

U.S. State Department Export Designation:  
**S-80E**

- Heavy Lift Missions
  - Troop assault
  - Combat resupply (Ext/Int)
  - Tactical aircraft recovery
  - Combat SAR
  - VIP

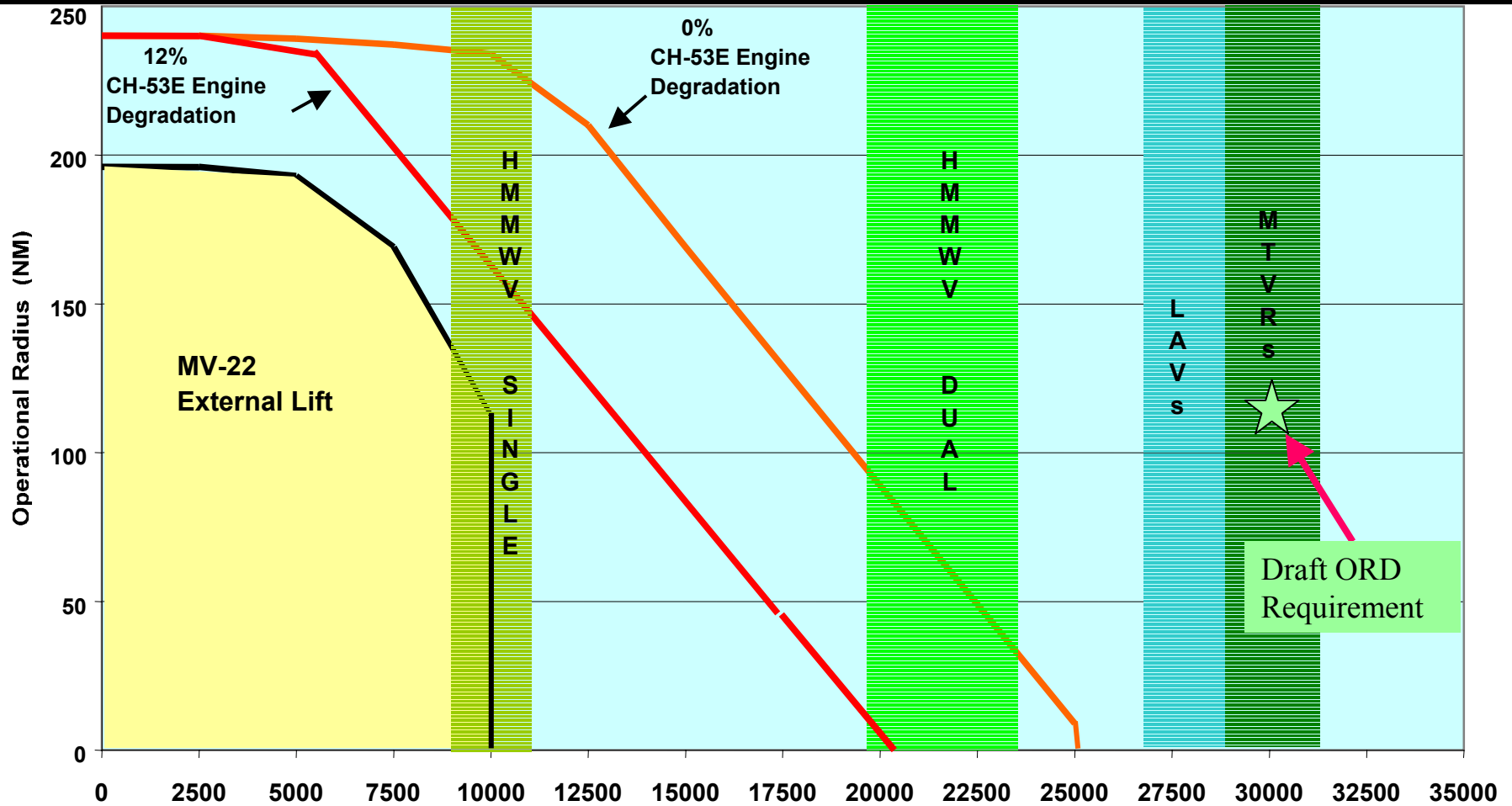


U.S. Military Designation:  
**MH-53E**

U.S. State Department Export Designation:  
**S-80M**

- Airborne Mine Countermeasures (AMCM) role incorporating larger external fuel sponsons and an improved AFCS
  - AMCM
  - Vertical Onboard Delivery

# Heavy Lift – Payload/Range 35° C

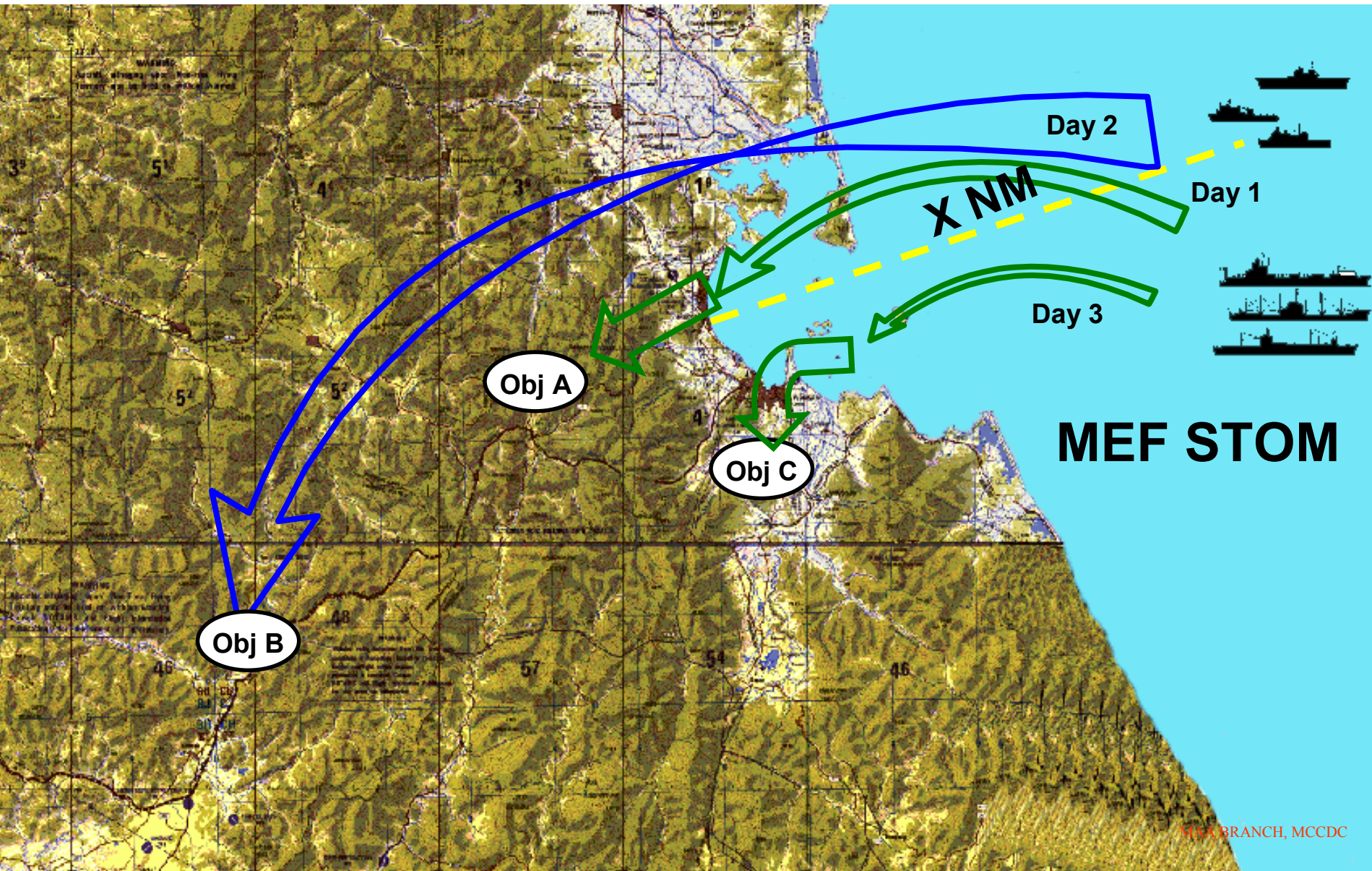


Derived from MV-22 & CH-53E NATOPS  
 Profile: no wind, sea level VTO, pick up external,  
 outbound @ 100KIAS, 5 min hover, drop load,  
 inbound @ Vbr, on deck @ 1500lbs for CH-53E,  
 1300lbs for MV-22.

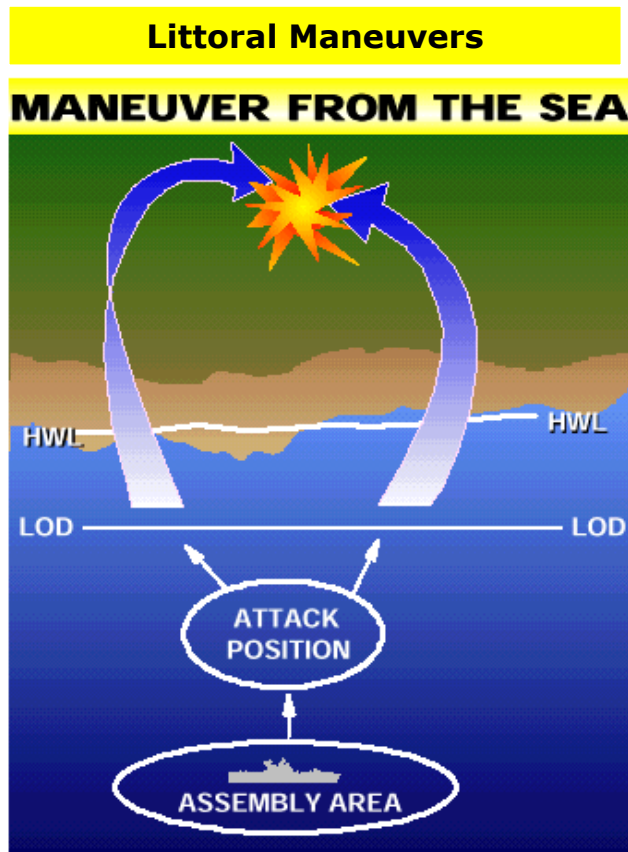
Payload Weight



# CONCEPT OF OPS



# CH-53E SLEP/CH-53X /CH-53F



*Combat Radius ~110-200 nm*

> Use the Sea as Maneuver Space

> Integration of organic, joint and combined assets



## Draft Requirements

- 30k lbs 110 nm lift
- Increased service life
- Compatible with digital battlefield
- Reduced cost of ownership

## Program Status

- Designated a Pre-MDAP
- ORD and AOA under development
- MS B DAB review beginning FY05
- Currently under contract for pre-MS B support

# Helicopter/Assault Mission

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## PMA System needs

1. Life limited structure improvement (Lighter/Stronger)
2. Improved high capacity, large diameter roller bearings
3. Airborne Mine Detection/Classification/Identification Capability
4. Improved high speed/large throughput data link
5. Obsolescence solutions for legacy systems
6. Improved helicopter dynamic component reliability
7. Aircraft IR signature reduction
8. Integrated mechanical diagnostics/health, usage and monitoring



# Helicopter/Assault Mission

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10. Improved ASE to meet 21<sup>st</sup> Century threats
11. Improved ballistic technology for helicopters
12. Air telephone technology for helicopters
13. Email access while airborne
14. TV/Video Tele-conference access while airborne
15. Cockpit/cabin laser protection
16. Improved survivability enhancements
17. Low IR/Corrosive resistant paints
18. Obstacle/Wire detection
19. Improved capability in degraded visual environments

# System Needs Timeline

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